

PROJECT SUMMARY

County: Amador, Calaveras, Tuolumne

**Applicant: Central Sierra Resource Conservation and Development, Inc.
(CSRC&D)**

Project Title: Central Sierra Watershed Education Program

PROJECT GOAL

The goal of the Central Sierra Watershed Education (CSWE) Program is to develop young watershed stewards in four Central Sierra Watersheds (Calaveras River, Stanislaus River, Sutter Creek and Tuolumne River) by providing hands-on watershed educational resources and experiences for elementary to high school students.

PROJECT SCOPE

The CSWE Program is a three-year watershed education project for elementary, middle and high school students in four Central Sierra watersheds. Educators in two of the four watersheds, Calaveras and Sutter Creek, will receive additional field support from Stewardship Through Education, LLC (STE) in conducting curriculum-based watershed days, Watersheds Alive!, (elementary school) and watershed assessments (middle and high school). Both components will be biannual watershed activities utilizing the local watershed. The two components will use STE team's expertise and two existing standard-based classroom resources to facilitate teachers to successfully integrate field activities: *Circles and Cycles Guide* and the newly written *Watershed Science Service Learning Curriculum*. The *Circles and Cycles Guide* has been used for the past three years as a tool to bring community resources and school together. Pre and Post classroom lessons from the *Circles and Cycles Guide* will accompany the strategically planned elementary school Watersheds Alive! days. *The Watershed Science Service Learning Curriculum* written to enhance the middle and high school curriculum focuses on chemical, physical and biological properties of the streams. The curriculum is being augmented with a restoration curriculum for measuring success of native plant restoration. No restoration will take place, rather, the curriculum will be designed to assess the success of restoration efforts. Many of the sites have existing stream restoration or planned restoration. STE has been an integral part of coordinating activities, developing partnerships, and delivering support and educational expertise. The CSWE Program, in the Sutter Creek and Calaveras watersheds, will give students a more in-depth study for the stewardship of local watersheds.

In the Stanislaus and Tuolumne River watersheds strong support from potential partners has been obtained to support the development of *Circles and Cycles Guide* for Tuolumne County. This guide will be modeled from the successful Guide already being implemented in the Calaveras and Amador counties. Partnership development at specific field sites, in-service for teachers and partners on the use of the Guide, assistance with on-site watershed activities, and transportation costs for 25 field trips annually, are included in this proposal.

The CSWE Program is beneficial in developing young leaders, increasing awareness of

the importance of good watershed stewardship, affecting behavior and attitudes about water quality and stream health in students and their families, increasing outdoor recreational activities, developing partnerships between teachers and local resource agencies, determining the benefits of restoration projects, complementing citizen-based or professional-level assessments and ultimately resulting in improved water quality and ecosystem health.

LETTERS OF SUPPORT

CSRC&D Council members endorsed this project through their authorization. Additional letters of support were received from Tracey Towner-Yep, Amador County Recreation Agency; John Brophy, Calaveras County Office of Education; Gary Goffe, Calaveras Public Utilities District; Sean Rabe, City of Sutter Creek; Jim Goodrich, Groveland Community Service District; Tony Wight, Lone Elementary School,/Amador County Unified School District, Frank Meyer, Mountain Oaks School; Pat Derby, Performing Animal Welfare Society; Kathryn D. Hardy, Stanislaus National Forest; Ralph Retherford, Tuolumne Utilities District; Mikeal Stacher; Twain Harte Community Service District, Susan Snoke; Upper Mokelumne River Watershed Council.

SNC PROJECT DELIVERABLES AND SCHEDULE

PROJECT DELIVERABLES	TIMELINE
Teacher training – Amador and Calaveras	May 2009, 2010, 2011
<i>Circle and Cycles</i> Guide for Tuolumne County	June 2009
Spring Watersheds Alive!/Assessments	June 2009, 2010, 2011
Summative Evaluation, 6 mo. reports	June 2009, 2010, 2011
Restoration Curriculum	July 2009
In-service training for Tuolumne teachers Annual Implementation of <i>Circles and Cycles</i> Guide for Tuolumne County	July 2010 – June 2012
Teacher training – Amador and Calaveras	October 2009, 2010, 2011
Fall Watersheds Alive!/Assessments	November 2009, 2010, 2011
Summative Evaluation, 6 mo. reports	December 2009, 2010, 2011
Final Report	July 2012

SNC PROJECT COSTS

PROJECT BUDGET CATEGORIES	TOTAL SNC FUNDING
Project Management & support staff	\$9,500
Regional Watershed Service Learning Program in Amador and Calaveras (contract)	\$49,000
Tuolumne/Stanslaus Watershed Guide (contract)	\$27,300
Indirect Administration	\$12,900
SNC GRANT TOTAL	\$98,700